and two-thirds of the middle tibiæ the same colour; pubescence on legs black; fore coxæ covered with yellowish-grey tomentum and with long black hairs. *Wings* clear, the veins brown, the cross-veins all shaded narrowly with brown, stigma yellowish brown; appendix present.

Tabanus gentilis, Erichson, Archiv. f. Naturgesch. viii. p. 271 (1842).

This species by reason of its spotted wings is more easily identified than the other two species by the same author, and has been found by Mr. Arthur White in Tasmania, who has kindly given a specimen to the Brit. Mus. Coll.

My new species, *Tabanus froggatti*, is nearly related to *T. gentilis*, both species having the same-shaped forehead, quite a distinctive feature in them. This species is distinguished from my species by its reddish antennæ and legs; the palpi are also lighter in colour, and the hairs on the face and the beard are more largely white than black. The chief difference is in the wings, which in this species are more distinctly spotted, all the cross-veins on the upper part of wing having dark spots round them.

XXXIII.—*Notes on Fossorial Hymenoptera.*—XVII. *On new Ethiopian Species.* By Rowland E. Turner, F.Z.S., F.E.S.

Family Crabronidæ.

Subfamily *Stizinæ*.

Sphecius milleri, sp. n.

♀. Nigra; capite, antennis, pronoto, mesonoto lateribus, tegulis, scutello pedibusque ferrugineis; clypeo, segmentoque primo secundoque dorsalibus macula magna utrinque flavis, segmenti secundi maculis strigam nigram transversam includentibus; alis flavo-hyalinis, venis ferrugineis.
Long. 25 mm.

♀. Clypeus with a large, flattened, rather indistinctly margined, subtriangular area in front; eyes converging towards the clypeus, posterior ocelli rather more than twice as far from each other as from the eyes. Antennæ inserted as far from each other as from the eyes, the scape short, about half as long as the second joint of the flagellum,

which is half as long again as the third, the flagellum thickened towards the apex. Thorax finely and very closely punctured, clothed with short greyish pubescence; abdomen more sparsely punctured. Hind calcaria broad, blunt at the apex, as long as the second and third joints of the hind tarsus combined. Second abscissa of the radius very short, about one-quarter of the length of the first transverse cubital nervure, and a little shorter than the distance between the two recurrent nervures on the cubitus, the second recurrent nervure received as near to the first as to the apex of the second cubital cell. The abdomen is not much broadened to the base, much less so than in *grandidieri*.

Hab. Ambirisao, N. Rhodesia; October (*F. V. Bruce Miller*).

In the shape and markings of the abdomen this species approaches the S. American *S. spectabilis*, Tasch. The form of the clypeus is near *S. grandidieri*, Sauss., from which it differs much in colour, in the more slender form, in the less dilated hind calcaria, and in details of neuration.

Subfamily *Arpactinæ*.

Ammatomus spiniferus, Buyss.

Gorytes spiniferus, Buyss. Ann. Soc. Ent. France, p. 359 (1897). ♀.
Ammatomus africanus, Turn. Ann. & Mag. Nat. Hist. (8) x. p. 374 (1912). ♀.

Arpactus (*Hoplisoides*) *marshalli*, sp. n.

♂. Ferrugineus; mandibulis, clypeo, orbitis internis, scapo subtus, pronoto, scutello dimidio apicali, segmento dorsali primo fascia lata apicali lateribus dilatata, quarto fascia apicali, secundo tertioque fascia angustissima apicali flavis; alis hyalinis, area radiali infuscata, stigmate testaceo, venis nigris.
Long. 9 mm.

♂. Clypeus broad, transverse at the apex, labrum shallowly emarginate in the middle; eyes slightly convergent towards the clypeus, posterior ocelli almost twice as far from each other as from the eyes. Second joint of the flagellum longer than broad, joints 3–10 as broad as long, or broader; a distinct sulcus from the anterior ocellus to the base of the antennæ. Head finely and not very closely punctured, thorax and abdomen with larger punctures, pronotum and first dorsal segment shining and almost smooth, the triangular basal area of the median segment rather coarsely obliquely striate. Mesonotum broad and robust;

median segment short. First abdominal segment gradually broadened from the base; pygidium broadly triangular, without a distinct pygidial area. Anterior tarsi without a comb. Carina of the mesosternum as in *aglaia*, Handl. Cubitus of the hind wing interstitial with the transverse median nervure; second abscissa of the radius as long as the first.

Hab. Chirinda Forest, Gazaland; March 1907 (*G. A. K. Marshall*).

This is a more robust species than *aglaia*, Handl., or *thalia*, Handl. The penultimate joint of the antennæ is slightly excavated beneath, but not as strongly as in *aglaia*. The yellow apical bands on the second and third dorsal segments are extremely narrow, almost obsolete. The thorax is more sparsely punctured than in *aglaia*.

Arpactus nyasicus, sp. n.

♂. Niger; antennis, mesonoto, segmentoque dorsali secundo fascia lata basali ferrugineis; clypeo, mandibulis basi, scapo subtus, orbitis interioribus anguste, pronoto, mesonoto lateribus, fasciisque duabus longitudinalibus, tegulis, mesopleuris antice, scutello fascia apicali, postscutello, segmento mediano fascia lata obliqua utrinque, metapleuris antice, segmento dorsali primo macula basali, fasciaque apicali interrupta et lateribus valde dilatata, segmentis 2–5 fascia lata apicali, sexto omnino, segmento ventrali primo, secundo macula triangulari utrinque, coxis supra, femoribus subtus, tibiisque subtus flavis; femoribus tibiisque supra tarsisque fusco-ferrugineis; alis hyalinis, venis fuscis, stigmate testaceo, cellula radiali valde infuscata.
Long. 11 mm.

♂. Antennæ simple, the second joint of the flagellum longer than the scape, equal to the third joint. Clypeus very slightly convex, the apical margin straight; a distinct groove running from the anterior ocellus to the antennæ. Eyes converging towards the clypeus, but not quite as strongly as in *natalensis*, Sm. The whole insect shining, the punctures microscopic; head and abdomen clothed with a fine silky pubescence; a transverse row of large punctures at the base of the scutellum; four indistinct longitudinal grooves from the anterior margin of the mesonotum; the marginal and median grooves of the smooth basal area of the median segment striated. First abdominal segment slender, distinctly constricted at the apex. Second abscissa of the radius a little longer than the first; second recurrent nervure received a little farther from the apex of the second

cubital cell than in *natalensis*. Cubitus of the hind wing originating before the transverse median nervure.

Hab. Nyasaland, S.W. of Lake Chilwa; January 16, 1914 (*S. A. Neave*).

This belongs to the group of *natalensis*, Sm., and *effugiens*, Brauns, but differs much in colour. The mesonotum is marked in front by four shallow grooves instead of low carinæ as in the two species referred to.

Arpactus fugax, sp. n.

♀. Brunneo-ferruginea; fronte, vertice, mesonoto fascia longitudinali, scutello basi, postscutello basi, segmento mediano area basali, mesosternoque nigris; pronoto, scutello postscutelloque fascia apicali, segmento dorsali secundo fascia lata apicali, quarto fascia apicali, quintoque omnino flavis; alis hyalinis, venis fuscis, stigmate testaceo, area radiali valde infuscata.

Long. 13 mm.

♀. Eyes slightly, but not strongly, converging towards the clypeus; second and third joints of the flagellum about equal, longer than the scape; front marked with a distinct longitudinal groove. Mesonotum marked anteriorly with four short and distinct grooves; the transverse, crenulate, groove at the base of the scutellum very strongly marked; the marginal and median grooves of the minutely punctured and pubescent basal area of the median segment marked with distinct striæ. The whole insect very minutely punctured and clothed with very fine pubescence, more sparsely punctured on the head. First abdominal segment slender, gradually widened from the base; pygidial area shining, with a few scattered punctures, triangular, the sides longer than the base. Second abscissa of the radius as long as the first.

Hab. Makindu, British East Africa; December 16, 1911 (*S. L. Hinde*).

This belongs to the *natalensis* group, and seems to be very near *effugiens*, Brauns, but has shallow grooves on the mesonotum, instead of low carinæ, no yellow band on the third dorsal segment, and the eyes can hardly be described as "stark konvergent." In other points the description of *effugiens* agrees fairly well with *fugax*.

The African species of the *natalensis* group (of which Handlirsch gives *kohlii* as the type) may be separated as follows:—

1. Second dorsal segment almost entirely yellow, at most with a triangular black mark on the middle of the apical margin ..... *A. natalensis*, Sm.

Apical half or less of the second dorsal segment yellow	2.
2. Mesonotum with yellow bands	*A. nyasicus*, Turn.
Mesonotum without yellow bands	3.
3. Third dorsal segment with a yellow apical band	*A. effugiens*, Brauns.
Third dorsal segment without yellow markings.	*A. fugax*, Turn.

Fam. Bethylidæ.

The African genera closely allied to *Pristocera* may be divided as follows:—

1. Apical ventral segment divided from base to apex	2.
Apical ventral segment not divided, pronotum strongly depressed transversely close to the posterior margin	*Pristocera*, Klug.
2. Pronotum strongly transversely depressed close to the posterior margin; head unarmed	*Mangesia*, Kieff.
Pronotum not depressed transversely	3.
3. Cheeks armed with a strong spine	*Nomineia*, Kieff.
Cheeks unarmed	*Kathepyris*, Kieff.

These genera are very close to each other, and perhaps would have been better left as one genus till the females are better known. The depressed transverse groove near the apex of the pronotum is common to *Pristocera* and *Mangesia*, but the female of the latter differs from *Pristocera* in the structure of the median segment. The development of the neuration in all the genera seems to vary considerably, also the position of the first recurrent nervure.

In my keys to the species I only include those which I have seen.

Key to the Species of Mangesia.

1. Head strongly tuberculate at the posterior angles beneath	*M. tuberculata*, Turn.
Head not tuberculate	2.
2. First recurrent nervure well-defined	3.
First recurrent nervure only faintly indicated	4.
3. Entirely black, wings dark fusco-hyaline.	*M. brevicornis*, Turn.
Head and dorsal surface of the thorax red, wings fusco-violaceous	*M. atopogamia*, Turn.
4. Antennæ orange	*M. subviolacea*, Enderl.
Antennæ black or fusco-ferruginous	5.
5. Black, the mandibles only fusco-ferruginous	6.
Antennæ fusco-ferruginous, four apical abdominal segments ferruginous red	*M. ruficaudata*, Westw.
6. Space between second and third mandibular teeth much greater than between the others, antennæ slender at apex	*M. communis*, Turn.

Space between second and third mandibular teeth no greater than between the others, antennæ not slender at apex	*M. atra*, Kieff.

Mangesia subviolacea, Enderl.

Pristocera subviolacea, Enderl. Arch. f. Naturg. p. 211 (1901). ♂.
Mangesia fuscipennis, Kieff. Ann. Soc. Sci. Bruxelles, xxxv. p. 210 (1911). ♂.

Mangesia atopogamia, sp. n.

♂. Niger; capite, pronoto, mesonoto scutelloque rufis; flagello nigro; alis fusco-cæruleis.
Long. 17 mm.

♂. Mandibles very broad, with five strong teeth; clypeus with a distinct median carina; antennæ inserted low down, close to the base of the clypeus, a tubercle above the base of each antenna; the flagellum covered with black pubescence, the first joint as broad as long, the third nearly as long as the first and second combined and fully half as long again as broad, the apical joint longer than the penultimate and about five times as long as broad. Head punctured-rugose, subquadrate, rounded at the posterior angles; eyes separated from the posterior margin of the head by a distance not exceeding their own length; ocelli in a triangle, the posterior pair about four times as far from the eyes as from each other. Thorax coarsely punctured, the pronotum strongly rounded anteriorly; median segment coarsely rugose, with a median longitudinal carina, the surface of the posterior truncation transversely rugose-striate. Abdomen flattened, smooth and shining, the seventh segment very broadly rounded at the apex. Neuration similar to that of *fuscipennis*, Kieff., the type of *Mangesia*; but the extension of the radius is more distinct, and the cubitus is continued beyond the apex of the second cubital cell, though broken by a white scar at the junction of the first transverse cubital nervure.

Hab. S.W. of Lake Chilwa, Nyasaland; January (*S. A. Neave*).

The head is much more quadrate than in *fuscipennis* and less narrowed posteriorly, the petiole is shorter, being broader than long, and only the median carina of the median segment is developed. The tarsal ungues are tridentate, as in Kieffer's figure (Ann. Soc. Sci. Bruxelles, p. 201, 1911). Superficially this species strongly resembles *Elis atopogamia*, Sauss., which occurs in the same locality, the size and colour being the same in both species.

Mangesia incerta, sp. n.

♀. Nigra; mandibulis basi fusco-ferrugineis; tarsis articulis duobus apicalibus brunneo-testaceis.
Long. 13·5 mm.

♀. Wingless; mandibles very broad, tridentate, the upper tooth broadly truncate, the outer surface of the broad apical portion of the mandibles striate-rugose. Antennæ thirteen-jointed, the scape strongly arched, the flagellum nearly two and a half times as long as the scape, the two apical joints longer than broad, the others as broad as long or broader. Head subquadrate, slightly rounded at the posterior angles, strongly punctured, the punctures sometimes confluent longitudinally. Ocelli absent, eyes small, ovate, reaching the base of the mandibles. Pronotum about half as broad as the head, a little longer than broad, widened rather abruptly close to the posterior angles, strongly but rather sparsely punctured. Scutellum smooth and shining, triangular; mesopleuræ strongly punctured, showing a dorsal lobe on each side of the scutellum. Median segment longer than the pronotum, narrowed almost to a point at the base, and widely furcate, gradually broadened posteriorly, the apical slope oblique, the dorsal surface smooth and shining at the base, very sparsely punctured at the apex, with a broad, shallow, longitudinal sulcus, the surface of the posterior slope rugulose; sides of the segment almost smooth. Abdomen shining, minutely punctured; the first segment as long as the second and rounded at the base; six dorsal segments. Tarsal ungues simple; intermediate tibiæ strongly spinose; hind tibiæ hairy, but without spines.

Hab. S.W. of Lake Chilwa, Nyasaland; January (*S. A. Neave*).

Although not taken coupled I have no doubt that this is the female of a species of *Mangesia*. It may be distinguished from females of *Pristocera* by the less developed fork at the base of the median segment and by the presence of a sulcus on the dorsal surface of the segment. The abdomen has only six distinct segments, though there is a very small seventh segment, which is probably often withdrawn below the sixth; in *Pristocera* there are eight segments.

Mangesia tuberculata, sp. n.

♂. Niger, albo-pilosus; mandibulis basi fusco-ferrugineis; alis fusco-hyalinis; capite angulis posticis infra tuberculatis.
Long. 14 mm.

♂. Mandibles broad, with five teeth at the apex; the clypeus almost flat, with a very low carina. Head punctured-rugose, the hind angles beneath produced into stout tubercles, somewhat longer than broad, slightly narrowed posteriorly, the eyes separated from the posterior margin of the head by a little more than their own length. Pronotum transversely rugose, arched anteriorly, a little shorter than the mesonotum; mesopleuræ rugose, dorsulum and scutellum coarsely punctured. Median segment rugose, with a narrow longitudinally striated space at the base, three longitudinal carinæ rather near together running from the base to the apex, the space between them transversely striated. Abdomen shining, almost smooth. Tarsal ungues bifid, with a blunt lobe at the base. Neuration as in *subviolacea*. The sides of the median segment are strongly striated.

Hab. Mlanje, Nyasaland; January (*S. A. Neave*).

This species may be distinguished by the tubercles on the head. The tarsal ungues resemble those of *K. nyassica*, but the basal lobe is more strongly developed. The recurrent nervure is received well before the first transverse cubital nervure. The pronotum is distinctly transversely depressed on the posterior margin. The wings are hyaline at the base, a fuscous cloud spreads itself apically from the stigma. The species is near *decemdentata*, Enderl. (Arch. f. Naturg. p. 213, 1901), but in that species the tegulæ and mouth-parts are yellow-brown, the five apical joints of the antennæ, although much thinner than the preceding joints in *tuberculata*, are no longer, as is the case in *decemdentata*. The sculpture is also different. Enderlein does not mention the shape of the head in his species, but the shape of the mandibles is very similar. A specimen from Calabar in the British Museum, which I identify as *decemdentata* with some doubt, is only 10 mm. in length and has a much smaller head, rounded at the hind angles and without tubercles, the pronotum is also without a transverse sulcus at the apex; so that if I am right in my identification, *decemdentata* is a *Kathepyris*.

Mangesia brevicornis, sp. n.

♂. Niger, albo-pilosus; alis fusco-violaceis.
Long. 13 mm.

♂. Mandibles tridentate; antennæ stout and short, not more than half as long again as the head, the second joint of the flagellum as long as the first and third combined, joints 4–7 broader than long, the four apical joints very much

more slender than the others. Head coarsely punctured, a little longer than broad, rounded at the posterior angles. Pronotum rugose, arched anteriorly, transversely depressed on the posterior margin ; mesonotum and mesopleuræ punctured-rugose ; scutellum sparsely punctured. Median segment irregularly reticulate, transversely striated towards the apex, three carinæ from the base not reaching beyond the middle. Abdomen shining and almost smooth, the sides thinly covered with white pubescence. Tibiæ thickly covered with white pubescence ; the tarsal ungues tridentate, the basal tooth rather blunt. Recurrent nervure received before the first transverse cubital nervure, the latter rather indistinct.

Hab. Mlanje, Nyasaland (*S. A. Neave*) ; February.

This may be distinguished from *atra* by the antennæ, which are very stout at the base, with the four apical joints abruptly narrowed, by the position of the recurrent nervure, and the colour of the wings.

Mangesia communis, sp. n.

♂. Niger ; mandibulis fusco-ferrugineis ; alis hyalinis, leviter infuscatis, venis nigris.
Long. 13 mm.

♂. Mandibles quadridentate, the second and third teeth much more widely separated from each other than from the other teeth ; second joint of the flagellum distinctly longer than the third, the apical joints slender but not elongate. Head coarsely punctured, rather sparsely on the vertex, punctured-rugose on the front, quadrate, the eyes separated from the posterior margin of the head by a little more than their own length. Pronotum transversely rugose, the anterior margin raised, the posterior margin strongly depressed. Mesonotum and scutellum strongly but rather sparsely punctured, the mesopleuræ rather more closely punctured. Median segment irregularly longitudinally striate at the base, with a low median carina reaching the apex of the horizontal surface, the remainder of the horizontal surface very irregularly reticulate, the apical slope almost vertical and transversely striated. Abdomen shining, the sides and apex very finely punctured and clothed with thin white pubescence. Submedian cell closed ; cubital, transverse cubital, and recurrent nervures more or less faintly indicated, the first recurrent received before the first transverse cubital, the second recurrent and second transverse cubital indicated by white scars.

Hab. Mlanje, Nyasaland, 6500 ft.; December to February (*S. A. Neave*).

This is rather near *atra*, Kieff., but the mandibles are different, also the position of the first recurrent nervure, which is interstitial in *atra*. In that species the antennæ are stouter, especially at the apex, and the second joint of the flagellum is not longer than the third.

Key to the Species of Kathepyris.

1.	First transverse cubital nervure present; abdomen black	2.
	First transverse cubital nervure obsolete; abdomen light ferruginous	*K. abdominalis*, Turn.
2.	First recurrent nervure interstitial with the first transverse cubital nervure	*K. nyassica*, Kieff.
	First recurrent nervure received before the first transverse cubital nervure	*K. decemdentata*, Enderl.

Kathepyris abdominalis, sp. n.

♂. Niger; mandibulis, antennis, abdomine, tegulis pedibusque rufo-testaceis; alis hyalinis, venis rufo-testaceis.
Long. 7 mm.

♂. Mandibles bidentate; antennæ not stout, 13-jointed, the joints of the flagellum (except the first) longer than broad, the third joint as long as the second. Head coarsely but not very closely punctured, broader than long, the eyes separated from the posterior margin of the head by a distance not exceeding their own length. Pronotum longer than the mesonotum, much narrowed in front, the anterior margin straight, closely punctured; mesonotum and scutellum more sparsely punctured; mesopleuræ finely rugose, with a shining patch below the base of the hind wings. Median segment longer than broad, finely rugose at the base, smoother at the apex, with two low, parallel, longitudinal carinæ. Abdomen smooth and shining. Tarsal ungues bifid. Submedian cell only indistinctly enclosed on the outer and lower margins. The apical ventral segment is divided longitudinally.

Hab. Mt. Kokanjero, S.W. of Elgon, Uganda Protectorate, 6400 ft.; August (*S. A. Neave*).

The cubital, transverse cubital, and recurrent nervures are indicated by faint scars, the transverse cubital being practically obsolete; the first recurrent joins the cubitus before the position of the first transverse cubital.

Genus Nomineia, Kieff.

Nomineia, Kieff. Ann. Soc. Ent. France, lxxx. p. 453 (1911).

Type, *N. africana*, Kieff.

This genus may be distinguished by the long spines on the cheeks, but is very close to *Pristocera* and *Kathepyris*.

Key to the Species.

1. Recurrent nervure interstitial with the first transverse cubital nervure, well developed .. *N. spinigera*, Turn.
   Recurrent nervure received before the first transverse cubital nervure, indistinct ..... *N. armaticeps*, Turn.

Nomineia spinigera, sp. n.

♂. Niger, albo-pilosus ; alis fusco-hyalinis ; genis infra acute tuberculatis, pronoto antico angustato, margine antico anguste truncato.

Long. 12·5 mm.

♂. Mandibles long, strongly bent before the apex and bidentate ; clypeus with a carina, head coarsely punctured, somewhat broader than long, subrectangular, rounded at the posterior angles, cheeks beneath with a stout and long spine, which is touched by the point of the long mandibles when they are closed. Pronotum strongly narrowed anteriorly, nearly as long as the mesonotum, the anterior margin short and transverse. Thorax strongly but rather sparsely punctured, very sparsely on the dorsulum, the mesopleuræ rugose. Median segment with a distinct triangular basal area occupying most of the dorsal surface, the base longitudinally striated, the apical portion obliquely striated at the sides, with a low longitudinal carina in the middle, on each side of which are short transverse striæ on an elongate-ovate surface ; the segment is broader than long, rounded at the posterior angles, and vertically truncate posteriorly. Abdomen shining and almost smooth, with white hairs on the sides. Neuration as in *fuscipennis*. Tarsal ungues tridentate, the basal tooth obtuse. Recurrent nervure interstitial with transverse cubital nervure.

Hab. Simba, British East Africa, 3350 ft. ; April (*S. A. Neave*).

A genus easily distinguished by the spine on the cheeks and the very long mandibles.

Pristocerus rosmarus, Stadelm., is very near this species,

but the description of the pronotum does not correspond, the two deep transverse furrows and the longitudinal sulcus mentioned by him being absent in the present species. The spines on the cheek are very similar in the two species. *P. rosmarus* has been transferred by Stadelmann to his genus *Dicrogenium*, which is placed by Ashmead in his family Cosilidæ. I have not seen specimens of the genus, which is said to be without the lobe of the hind wing characteristic of the Bethylidæ. But I am inclined to look on the genus as an aberrant Bethylid, rather than transfer it to the position assigned to it by Ashmead.

Nomineia armaticeps, sp. n.

♂. Niger, rugose punctatus; tegulis fuscis; alis hyalinis, leviter infumatis; genis spina acuta armatis.
Long. 8 mm.

♂. Mandibles tridentate, the inner tooth not well defined, very short and blunt; second joint of the flagellum no longer than the third, the apical joints not much narrowed. Head much broader than long, front rugose, vertex coarsely punctured; eyes separated from the posterior margin of the head by a distance scarcely equal to their own length; cheeks armed beneath with a strong spine. Thorax coarsely punctured, mesopleuræ rugose; pronotum much narrowed in front, the anterior margin straight. Median segment broader than long, longitudinally striated at the base, the triangular dorsal area well marked, the sides of the area finely obliquely striated, the sides of the segment and surface of the apical truncation rugulose. Abdomen smooth and shining, with sparse white pubescence on the sides and ventral surface, the apical segment punctured. Tarsal ungues bidentate. Submedian cell incompletely closed, the nervures at the apex indistinct; recurrent nervure and first transverse cubital nervure indistinctly indicated, not interstitial. An indistinct nervure from the apex of the radius reaching nearly to the margin of the wing.

Hab. Harar, Abyssinia (*G. Kristensen*).

This is very nearly related to *N. spinigera* in the structure of the head and pronotum, but the mandibles are shorter. In both the transverse depression at the posterior margin of the pronotum is absent. In the present species the neuration is less developed than in *N. spinigera*, the submedian cell being imperfectly closed, the recurrent and transverse cubital nervures only indicated, and not interstitial as in *N. spinigera*.

Pseudocalyoza, gen. nov.

♂. Antennæ twelve-jointed, joints 2–6 of the flagellum strongly produced at the apex on the outer side, but without a long lamella; pronotum long, narrowed anteriorly, not margined, and without a groove on the posterior margin; mesonotum with two longitudinal furrows on each side, scutellum with a fovea on each side at the base; median segment margined at the apex, with five longitudinal carinæ; tarsal ungues bifid, with a blunt lobe at the base; neuration as in *Calyoza*.

Pseudocalyoza subramosa, sp. n.

♂. Niger; antennis articulis septem basalibus, mandibulisque apice brunneo-ferrugineis; abdomine segmentis quinto, sexto, septimoque, quartoque dimidio apicali rufo-ferrugineis; alis subhyalinis.
Long. 9·5 mm.

♂. Mandibles broad and short, tridentate at the apex, the outer tooth not much longer than the others. Clypeus with a carina; head and thorax closely, but not very coarsely, punctured; head broader than long, the eyes separated from the posterior margin by a distance not equal to their own length. Antennæ longer than the thorax and median segment combined, twelve-jointed, the scape no longer than the second joint of the flagellum and strongly curved, first joint of the flagellum very short, the other joints not differing much in length, joints 2–6 strongly produced at the apex on the outer side. Pronotum much longer than the mesonotum, strongly narrowed anteriorly; median segment distinctly broader than long, with five longitudinal carinæ, the lateral carinæ converging a little towards the apex, the space between them finely transversely striated. Abdomen shining, very shallowly and indistinctly punctured, with seven dorsal segments; hypopygium terminating in two long spines, as in Mutillidæ.

Hab. Mlanje, Nyasaland; November (*S. A. Neave*).

The antennæ are somewhat similar to those of *Pristocera laticornis*, Kieff., but in that species the lower discoidal cell is closed. The dilatation of the antennal joints reaches the ninth joint. There is no transverse groove on the pronotum in *subramosa*.

Genus Paracalyoza, Cam.

Paracalyoza, Cam. Deutsch. ent. Zeit. p. 377 (1909).
Calyozina, Enderl. Ent. Mitth. Berlin, i. p. 263 (1912).

Paracalyoza hirtipennis, Cam.

Paracalyoza hirtipennis, Cam. Deutsch. ent. Zeit. p. 377 (1909). ♂.
Calyozina flavipennis, Turn. Ann. & Mag. Nat. Hist. (8) xiv. p. 245 (1914). ♂.

I had overlooked Cameron's description of this species. I do not think that there are sufficient reasons for separating the genus from *Calyoza*. Enderlein seems also to have overlooked Cameron's paper.

XXXIV.—*On the Pacific Species of* Hippoglossoides. By Peter Schmidt, Curator of the Ichthyological Department of the Zoological Museum of the Imperial Academy of Sciences in Petrograd.

The genus *Hippoglossoides*, Gottsche (*Drepanopsetta*, Gill), is represented in the Atlantic Ocean, as has been shown by Collett (1878) and by Smitt (1893), by only one species—*Hippoglossoides platessoides*, Fabricius. The identity of American and European representatives of this species, formerly distinguished as *Hippoglossoides platessoides* and *H. limandoides*, is now conceded apparently by all European and American writers.

Very different at first sight are the conditions in the Pacific, where no less than five reputed species of *Hippoglossoides* are recognized:—

(1) *Hippoglossoides elassodon*, Jordan & Gilbert (1880), described from Seattle, Tacoma, and Puget Sound, and afterwards recorded from the Bering Sea by American naturalists, and by me from the Okhotsk Sea (Schmidt, 1904).

(2) *Hippoglossoides robustus*, Gill & Townsend (1897), described from one specimen only from the Bering Sea (lat. 56° 14′ N., long. 164° 08′ W., 49 fath.). Not found afterwards.

(3) *Hippoglossoides hamiltoni*, Jordan & Gilbert (1899), described from a specimen from Avatcha Bay. I recorded two examples from the Okhotsk Sea near Cape Terpeniya (Schmidt, 1904).

(4) *Hippoglossoides dubius*, Schmidt (1904), described from two specimens (one of them young) from the